

CLAIMS

1. (Previously Presented) A central base for a private wireless local area network, the central base comprising:

an electronic central unit that is supplied with electricity by at least one live supply line intended to be connected to an external electricity power source, said central base adapted to communicate with a public telecommunication network, and

with at least one wireless peripheral device, according to a digital bidirectional wireless protocol for a private wireless local area network;

an interface circuit which is controlled by the electronic central unit of said central base and which is connected to said supply line, the interface circuit adapted to send and receive messages on said supply line, and further adapted to send and receive high frequency periodic signals representative of sent and received messages; and

a low-pass filter adapted to filter said high frequency periodic signals received from the supply line between the interface circuit of the central base and at least a portion of the electronic circuits of the central base.

2. (Previously Presented) The central base as claimed in claim 1, in which the interface circuit of the central base is installed in drop and insert mode on said supply line.

3. (Previously Presented) The central base as claimed in claim 1, in which the interface circuit of the central base is suitable for sending and receiving periodic signals at a frequency lying between 100 and 500 kHz.

4. (Previously Presented) The central base as claimed in claim 1, in which the interface circuit of the central base is controlled by the electronic central unit of the central base via a serial interface controller.

5. (Previously Presented) The central bases as claimed in claim 1, suitable for sending outgoing alphanumeric messages at least to the public telecommunication network and for receiving incoming alphanumeric messages at least from said public telecommunication network, the electronic central unit of the central base being suitable for:

(a) recognizing at least certain incoming alphanumeric messages intended for an external interface module, called service messages, and for causing to be generated on the supply line, by said interface circuit of the central base, a message corresponding to each incoming service message,

(b) and when it receives a message received by the interface circuit (30) of the central base on the supply line, determining whether this message must be transmitted to the outside and, in this case, sending an outgoing alphanumeric message, called outgoing service message, corresponding to the message received.

6. (Previously Presented) The central base as claimed in claim 5, also suitable for sending outgoing alphanumeric messages to at least one wireless peripheral device by using said wireless protocol, and for receiving incoming alphanumeric messages from said wireless peripheral device.

7. (Previously Presented) A wireless device comprising a central base as claimed in claim 1 and an external interface module, distinct from the central base, which itself comprises:

an electronic central unit,

and an interface circuit controlled by said electronic central unit of the external interface module and which is connected to said supply line, this interface circuit of the external interface module being suitable for communicating with the interface circuit of the central base by sending and receiving messages on said supply line.

8. (Previously Presented) The wireless device as claimed in claim 7, in which the interface circuit of the external interface module is installed in drop and insert mode on said supply line.
9. (Previously Presented) The wireless device as claimed in claim 7, in which the interface circuit of the external interface module is suitable for sending and receiving high frequency periodic signals representative of messages sent and received, and the external interface module comprises a low-pass filter (L2) suitable for filtering said high frequency periodic signals between the interface circuit of the external interface module and an electricity supply device intended to connect said supply line to the external electricity power source.
10. (Previously Presented) The wireless device as claimed in claim 7, in which the interface circuit of the external interface module is suitable for sending and receiving periodic signals at a frequency lying between 100 and 500 kHz.
11. (Previously Presented) The wireless device as claimed in claim 7, in which the interface circuit of the external interface module is controlled by the electronic central unit of said external interface module via a serial interface controller.
12. (Previously Presented) The wireless device as claimed in claim 7, in which the central base and the external interface module are suitable for communicating together according to a half-duplex asynchronous protocol.
13. (Previously Presented) The wireless device as claimed in claim 7, also comprising an external electronic device, distinct from the external interface module and communicating with the electronic central unit of said external interface module.

14. (Previously Presented) The wireless device as claimed in claim 13, in which the external electronic device is chosen from a sensor, and actuator and a centralized command and control device suitable for being connected to a plurality of sensors and actuators.

15. (Previously Presented) The wireless device as claimed in claim 7, comprising a central base, and in which the electronic central unit of the external interface module is suitable for causing messages intended to be sent by the central base in the form of outgoing service messages to be generated on the supply line, by the interface circuit of said external interface module.

16. (Previously Presented) A central base for a private wireless local area network, the central base comprising:

an electronic central unit that is supplied with electricity by at least one live supply line intended to be connected to an external electricity power source, the central base adapted to communicate with a public telecommunication network, and with at least one wireless peripheral device, according to a digital bidirectional wireless protocol for a private wireless local area network;

an interface circuit connected to the electronic central unit and the supply line, the interface circuit adapted to send and receive high frequency periodic signals representative of sent and received messages; and

a low-pass filter adapted to filter said high frequency periodic signals between the interface circuit of the central base and at least a portion of the electronic circuits of the central base,

wherein the electronic central unit is further adapted to receive an incoming alphanumeric message at least from the public telecommunication network, and determine whether the incoming alphanumeric message is intended for an external device and generate a message corresponding to the incoming message on the supply line using the interface circuit of the central base.